# SANKT-PETERSBURG RESEARCH INSTITUTE of HEMATOLOGY and TRANSFUSIOLOGY

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## To whom it may concern:

The patients included in attached information were treated by the physicians and staff at the Russian Institute for Hematology and Transfusiology in St. Petersburg. The information as presented is correct and accurate.

12.07.2002

1)ate

V.N. Kravets, ML. PhD - Head Physician

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CUNFIDENTIAL

Prepared of the Vassili Krawets 1 Ar Victor Rugal

Prepared of Results of Clinical Investigations in Bronchopulmonary Diseases

Under investigating conditions during treatment of over 300 cancer and bronchopulmonary disease patients being administered Preparate (the "Preparation"), the following was concluded:

It was discovered that Preparate, under small and extra small dosage (1\1000 and 1\75000 from LD5O <<7000 mg\kg) increases humoral and cell immunity, stimulates synthesis of some cytokins, mainly IFN-α, interleukins 1 and 6, activates cells-killers and stimulates T- and B-lymphocytes, (especially in weakened by different pathologies organisms). As the Preparation has anti-radiation activity, its administration facilitates improved undergoing of radiation therapy courses; enables radiation therapy to be conducted in a full volume, and treatment does not lead to a sudden worsening in patient's overall state. Said treatment produces anti-metastases action - up to 60.

During Preparation action, an increase in blood microcirculation in tissues (according to polarimetrical indexes) was observed. The treatment also stimulates the regenerative processes and stimulates the reticuloendothelial system.

The quantity of peripheral blood leukocytes were increased to normal levels. Notably, the Preparation effectively acts when the leukocytes quantity is critically decreased 1500-2500 while conducting chemotherapy and radiation therapy. The investigations were conducted on patients with mammary gland and lungs cancer (phase III & IV).

An advantage and a self feature of the Preparation is that after the first dose a normalization of white blood indexes is observed, which enables conducting a further full course of chemotherapy or radiation therapy.

When using the Preparation in clinic, there are two types of blood indices (leukocytes) increases: 1)fast - from one dose for one - three days, and 2)moderate - from 3 doses for 5-10 days.

One hundred (100) patients with cancer and bronchopulmonary pathology were studied for blood immune indexes before and after the treatment. The state of immune system was assayed by quantity of T- and B-lymphocytes, which were defined in reaction of spontaneous creation with sheep erythrocytes. Immune gamma-globulins' of certain classes, level of circulating immune complexes BGL (big granulocyte and lymphocytes), and interleukins 1 and 2 activity was also defined.

The secretory activity of thymus was defined on the basis of thymus serum factor level. The Preparation led to an increase in 80% of cases in the quantity of T-lymphocytes, of O-lymphocytes and an increased in the number of BGL.

The Preparation assisted protection of endocrine thymus function according to TSF (thymus-serum factor), raised blood serum levels of the immune gamma-globulins of M and G to within normal limits. The patients' carcinolytic properties in blood serum were raised.

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When using the Preparation combined with traditional complex treatment of cancer patients and of patients with bronchopulmonary diseases the treatment showed the following effects. There was a clear subjective effect in 40 lung cancer patients, in 37.5% of patients there was cough, respiration and chest pain softening, and bettering of overall state. After the treatment patients' state was 65-70% by Karnovski scale. In control group this was 40-50% by Karnovski scale.

It was determined that polychemotherapy for patients with mammary gland cancer was more effective if combined with the Preparation. The tumor volume was decreased by 40-50% in comparison with control patients.

For patients with pulmonitis and acute lung pathology (chronic bronchitis, pneumonia) there was significant progress in their overall state, peripheral blood indexes, leukocytes and lymphocytes quantity, and interleukins activity. The Preparation enabled a decrease in the length of hospitalization by 2 days, and in the case of chronic bronchitis, it reduced the number of exacerbation and made the patients course much easier and thereby fastening the rehabilitation process of such patients. The immune system of patients with bronchopulmonary pathology with combined therapy fastens the regeneration of immune homeostasis, especially after anti-inflaminatory therapy (antibiotics), which harmful effect on immunity state is well known.

In a group of 65 patients with secondary leukopoenia, who took the Preparation, an increase from 2 to 3.7 in 63 patients was observed. This enabled the full treatment course to proceed.

When used in digestive surgery, the Preparation diminished effects of after-surgery complications, fastened wounds healing, and increased rate of primary healing. Thus, the Preparation is an immunomodulator, which vitalizes function of thymus-dependent strain of immune system. Within anti-tumor therapy of lung and mammary gland cancer Preparate allows the patient to better tolerate the conventional treatment by decreasing the toxic effects. The Preparation improved the living state of such patients, assisted the tumor process stabilization, prevented a decrease in peripheral blood leukocyte quantity and increased their quantity within secondary leukopoenia, once again enabling further treatment in a full volume.

The Preparation does not engender any side effects and is not toxic.

Preparate is produced by a proprietary fermentation process and its highly concentrated form is obtained by use of a centrifuge. The residue is then separated into a concentrate and cream.

<u>Concentrate</u>: The concentrate is rendered into powder form, and can be used when mixed with any dairy product or my fruit extracts or just plain water.

<u>Cream:</u> The secondary yield is a cream-like substance (applied externally) is found to be effective in skin healing, cell regeneration and improvement of skin texture.

Liquid: This is the last yield of Preparate which contains a weaker concentration and can be ingested as a health water and can be used by anyone to boost resistance to exposure to such ailments as the common cold and other infectious maladies.

## **Preparate – Clinical Trials**

## Examples of in vivo Administration of Lactobacillus Preparation (Preparate):

Note: "Lactobacillus Preparation" is the terminology used in patents filed.

Blood samples from each of the patients in each of the patients described below were analyzed for a white blood cell count and BNT levels of the subject. An increase in an immune response was indicated in each of the patients a white blood cell count and a BNT level consistent with those of a healthy control subject. Typically, the powder form of the *Lactobacillus* derived composition was dissolved in yogurt or milk and administered to the patient by mouth.

#### Example 1.

A female patient, age 43, was diagnosed with populous cancer of the left breast in November of 1993. One lesion was measured at  $4.0 \times 3.6 \times 2.9$  cms. A second lesion was located on the lateral surface of the breast, near the underarm, and measured  $1.2 \times 1.5 \times 1.3$  cms. The lesions were nodular in appearance with jagged edges. The patient also had hyperplasia of the regional lymphatic nodes which measured 0.9 cms in diameter and were ovoid form in appearance. The patient refused recommendation of masectomy with radio- and chemotherapy.

The patient was placed on preparate, 10 mg/kg body weight, twice daily for one year, beginning November of 1993. Preparate was administered in conjunction with radiotherapy and/or chemotherapy as described herein. In October of 1994 lung x-rays were negative, showing no metastasis. The dosage of preparate was subsequently increased to 15 mg/kg body weight for one month.

After the one month therapy, examination of the left breast showed the lesion going through necrosis - puss milked from the nipple. Subsequent X-rays showed no sign of lesions. Mammography showed only sign of an infection. A mammography administered in 1997 was completely normal.

#### Example 2.

A female patient, age 34, exhibited in September of 1993 symptoms of decreased function in the left arm and left leg, drooping vision on both eyes, decreased memory, disorientation, dizziness and difficulty walking. In September of 1996 the patient began to experience extreme headaches, lack of control of bladder, and complete loss of ability to walk. In October of 1996, the patient was diagnosed with lipo sarcoma of the brain. The initial evaluation of the patient revealed the lesion to be inoperable due to the patient being very weak and the lesion being too massive.

Therapy with preparate was commenced in December of 1996 in combination with chemotherapy and radiotherapy. In January of 1997, the patients physical condition showed improvement which allowed for exploratory surgery to be performed. Lesion involvement was found in the brain stem and optic nerve. All necessary tests were performed to determine the characteristics of the lesion. In February of 1997, after one and one-half months of continued preparate therapy in conjunction with chemotherapy and radiotherapy, a second surgery was performed. The lesion was observed surgically as very small and was excised completely. The patient was subsequently discharged in April of 1997 with no sign of a tumor.

#### Example 3.

A 60 year old male alcoholic was diagnosed with Corner of soft palate in April of 1997. No metastasis was observed, only involvement of mucosa and submucosa. The patient received one course of radiotherapy but did not continue with the therapy due to extreme side effects, such as dry mouth and difficulty breathing. In May of 1997 the patient was placed on preparate therapy for 2 months at a dosage of 50 mg/kg body weight. In June of 1997, biopsy showed no sign of cancer.

#### Example 4.

A 71 year old patient was diagnosed with cancer of the pharynx in the fourth stage with metastasis to the lymphatic tissue. In May of 1997 the tomographic diagnosis was neoplasm of the right neck triangle with metastasis to the lung and spleen (2 angles were taken). In June of 1997 the patient was placed on preparate therapy in conjunction with radiotherapy. In July of 1997 a second examination revealed the lesion was broken up into pieces - (not one layer) as shown by tomographical analysis. Therapy with preparate was continued. In October of 1997 there was no sign of neoplasm in the neck triangle and no sign of metastatic lesions. Tomographical analysis showed only scar tissue. No sign of neoplasm was observed.

#### Example 5.

This case involves a 42 year old female diagnosed with cancer of the lung - epidermoid with metastasis to the brain. The patient received 5 course of radiotherapy and chemotherapy in combination with preparate for a period of ten months. The condition of the patient increased significantly after the fourth course. The patient at the present time has only one neoplasm of 25 mm diameter in the brain with no lung involvement. The patient is presently continuing with the same course of therapy.

#### Example 6.

A 60 year old female patient was diagnosed in July of 1997 with fourth stage cancer of the left lung. In August of 1997 the patient was placed on therapy with preparate in conjunction with chemotherapy and radiotherapy at a dosage of 50 mg/kg body weight. The patient is still undergoing therapy, but a monthly evaluation has shown decreases in lymph node involvement and decreases in the size of the tumor.

### Example 7.

A female patient was treated in an oncology hospital from May 17, 1998 to July 22, 1998 with cancer of the ovaries and metastasis in the abdominal lymph nodes. The patient was subjected to 3-4 courses of chemotherapy and radiotherapy in conjunction with preparate, with a cytopenic effect from 1-2 courses. The patient remained on ambulatory treatment. The metastasis completely disappeared, as shown in Figure 1. The leukocytes of the patient were measured after 1-2 courses of the therapy at a count of  $1.2 \times 10^9$ , and after 3-4 courses of therapy at  $2.6 \times 10^9$ .

#### Example 8.

A male patient was treated in an oncology hospital from May 23, 1998 to July 15, 1998 with cancer of the lung and metastasis in the abdominal lymph nodes. The patient was subjected to 3-4 courses of chemotherapy and radiotherapy in conjunction with preparate, with a cytopenic effect from 1-2 courses. The patient remained on ambulatory treatment. The metastasis completely disappeared, as shown in Figure 2. The leukocytes of the patient were measured after 1-2 courses of the therapy at a count of  $1.0 \times 10^9$ , and after 3-4 courses of therapy at  $2.5 \times 10^9$ .

#### Results

The results of the experiments set forth in the above Examples clearly indicate that the Lactobacillus composition (Preparate) described herein is extremely effective as a treatment for regulating the immune system, inhibiting the growth of tumor cells, inhibiting metastasis, and increasing the effectiveness of chemotherapy and radiotherapy. Preliminary observations made by the inventors suggest that the method of action of the Lactobacillus derived composition is the acting of specific cell wall enzymes of Lactobacillus to increase the response of the immune system in a subject.

#### Research Team

Dr. Victor I. Rugal, born in 1945, received a PhD from the Institute of Advanced Medical Studies in 1977. Dr. Rugal has published over 90 scientific papers and publications and is a member of the European Hematology Association, International Society of Blood Transfusion and the International Academy of Pathology. Dr. Brazil N. Kravets, born in 1945, received a PhD from the Medical Institute in 1985. Dr. Kravets has published 45 scientific papers and publications and is a member of the European Hematology Association, International Society of Blood Transfusion, International Academy of Pathology and is President of the Academy of Endoecology. Valery G. Vospyakov, born in 1943, received a [ ] from Leningrad University in 1976.

Subject: Re: (no subject)

Date: Thu, 11 Jul 2002 23:21:54 +0400 From: "ANATOLY PLIKH" <plikh@rol.ru> To: "John Sichel" <isichel@ecentral.com>

@ Response

Good morning, John,

Certainly I can do this for you and ceetainly I remember Vassily. Don't worry about the time of payment. In fact, I'm planning to go to Turkey with my wife and our grown-up children for a couple of weeks in August (we're going to buy the trips at the last moment to save some money) and then, possibly, I'll go to Sweden as an interpreter last week of August till September 3.

So most probably I would not be able to meet the kind lady from Denver. I think that can wait till you come here in person or somebody else comes this way (right now I have no plans to leave this city after August).

Keep in mind they will will leave for their summer cottage after 6 or 7 p.m. tomorrow (Friday, Moscow time) and will be back by Sunday night. But there answering machine will respond and then the fax! They have even agreed to leave their entrance door keys to me so that I could pick up your fax at the weekend.

I hope it's not going to be more than 20 pages. If it is more than that just let me know by email and I'll give you another fax number.

It's good you liked the vodka, my daughter liked your chocolates very much

Emai to translatur So please try and let me know about the fax business asap, next week I'll be busy from 16 to 18 July. So I can do the job either before July 16 or after July 18.

Be well,

Anatoly

---- Original Message -----From: John Sichel <jsichel@ecentral.com> To: <plikh@rol.ru>

Sent: Tuesday, July 09, 2002 4:37 PM

Subject: (no subject)

> Anatoly:

> Here are two items, the first is relates to sending money to you. There > is a lady from Denver who will be in St Petersburg in August. She is > willing to carry the US\$ for you...she will contact you and simply give > you my payment if you will meet her...if you wish to be paid > immediately..after hearing about item #2...I can send money by Moneygram > and you will have it the next day. Your choice...

> Here is a second request.

> Background information.

~`1 of 3

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> The US Food and Drug Administration (FDA) requires a document be filed
> before a nutritional supplement can be sold anywhere in the country. The
> document is carefully reviewed and the FDA tells us if all regulations
> are fulfilled...or they may ask for more information. In the case of the
> product Valerie is selling to me...more information is needed.
> Valerie has been contacted many times to answer a few questions but he
> is not responding. I have found other ways to get the answers that he
> must supply .
> The FDA has asked for some type of evidence that the Lactobacillus has
> been given to people and they were OK after taking it. Both Valerie and
> Vassilli were asked for some type of published paper that I could use
> for the FDA...neither has responded.
> I cannot do anything more until some type of clinical evidence become
> available. So here is my idea and how you might help me...assuming you
> are available.
> Two documents have been located discussing specific patients who
> received the Lactobacillis, their medical problems, the dosages, and the
> results . A second document is a review of 300 patients that were
> treated for cancer. The documents were written for a US Patent
> Application...the application was denied.
> I will alert Vassilli Kravets
                                                                   what is
> going on, that you will contact him, meet somewhere that is
> convenient...maybe the Octobsky Hotel...review the items and
> document their accuracy. You met Vassilli when we went to the Institute
> for Aging.
> Vassilli will recognize the patients, situtations etc because the
> information comes from the files at his hospital where he is the medical
> director.
> Here is my proposal. I would like to fax the documents to you...any fax
> number that you select...so that you can contact Vassilli and ask him to
> look over the patients for verification. A simple statement will be
> prepared by me and included in the fax that states that the information
> is accurate, the patients were treated at the hospital, and their
> records are on file. Then have Vassilli sign the statement as the Head
> Physician...and then fax everything back to me.
> I believe this will satisfy the FDA.
> After sending me a return fax the original signature and faxes that you
> receive can be sent to me by DHL Couriers and I will give you my account
> information for DHL.
> Then let me know the cost for your services and you will be paid
> immediately or in August...again your choice.
> Does this make sense and can you help as soon as possible?
> Many thanks for your prompt response...
> Be well...
>
> John
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↑2 of 3 7/9/02 6:37 PM

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> ps: The vodka your presented me was terrific..very strong stuff but
> never a hangover ! Thanks!
>
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e mailed

Thursday

Dear Vassilli and Ellen:

Allow me to move right to the subject.

It is very important to acheive FDA approval of the Lactobacillus delbrueckii powder as a first step for the large research grant that is being prepared by Dr Barry Beaty re: bioterrorism. He plans to do research on the product along with other immuno-therapeutic agents. The products in the study must be available on the market.

The first application to the FDA for the Lactobacillus was not accepted because the FDA did not see documents about patients, dosages, and results. I have talked with the people at the FDA and they just want a few more pieces of information...as mentioned to you before. They do not have a need to verify the information and they explained they just want some comfort in knowing the product has been used in people. They are just following our regulations and are not KGB...hope that you understand this!

Please allow me to suggest this for your consideration. I have located two excellent documents in English that describe the clinical use of the Lactobacillus delbrueckii at your hospital. The first document is a summary of about 10 cases with the diagnosis, treatment, dosages, etc, and results...it's very well prepared and straight forward. The second document is a summary of 300 cancer patients treated with the lactobacillus delbrueckii.

My idea is to fax the documents to the translator that you met in May...Anatoly Plikh. He can meet with you and serve as a translator to answer any questions because everything is written in English. If the clinical information is correct I ask that you state that in writing as follows:

"I have reviewed the two documents sent by John Sichel and find them to be accurate and truthful. The patients in the documents were treated by the physicians and staff at the Russian Institute for Hematology and Transfusiology, St Petersburg, Russia between 1988 and 1999" Dr V.N. Kravets-Head Physician.

If it possible for you to help with this I can complete the final documents for the FDA as soon as the information is faxed back to me by Anatoly.

Will you help me?

Thank you so very much,

John Sichel

To: Anatoly Plikh

From: John Sichel

Re: Verification of correct information

11 July 2002

Vassilli Kravets

Anatoly:

. A copy

Re: Confirmation of clinical use.

of the email that was sent to you was also sent to Vassilli. Hopefully you will be able to meet with him today.

Thank you for meeting with Vassilli and asking for his assistance in reviewing and verifying the attached information. The need to do this relates to my difficulty in having Vassilli or Valerie take the time to dig through their files for a published document that shows that patients were given the Lactobacillus ("Preparate") without any difficulty. The people in the FDA just need documentation to be reassured the product is safe...that is all!!

If you fax the information back to me ASAP I will be able to complete the second FDA document that is required.

Many thanks for your assistance.

Jen Sichie

Respectfully,

John Sichel

To: Dr Vassilli Kravets, MD PhD

From: John Sichel

11 July 2002

Dear Vassilli:

Your assistance is greatly appreciated as well as the translation services of Anatoly Plikh.

Here are two documents from the US Patent Application discussing the clinical use of the Lactobacillus delbrueckii, "Preparate". The first document relates to the Lactobacillus delbrueckii (Preparate) for treatment of 300 patients with broncopulmonary diseases. The second document describes a selection of individual patients with a variety of clinical conditions that were treated with the "Preparate" Lactobacillus delbrueckii.

I believe these are all patients that you, and the other doctors treated several years ago and then you compiled the information for reports, conferences, etc. If I am correct would you kindly verify the information is accurate?

This information is part of the data that is needed to simply show that the Lactobacillus delbrueckii is safe for patients to take. Your assistance is very much appreciated.

A statement is attached for your signature.

Low Bichie

Best wishes.

John Sichel

**To whom it may concern**: The patients included in attached information were treated by the physicians and staff at the Russian Institute for Hematology and Transfusiology in St Petersburg. The information as presented is correct and accurate.

V.N. Kravets, MD. PhD –Head Physician Russian Institute of Hematology and Transfusiology St Petersburg, Russia Date